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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/731,178	12/06/2000	Steven D. Goedeke	P-8896	9273
27581	7590	08/06/2004	EXAMINER	
MEDTRONIC, INC. 710 MEDTRONIC PARKWAY NE MS-LC340 MINNEAPOLIS, MN 55432-5604			OPSASNICK, MICHAEL N	
			ART UNIT	PAPER NUMBER
			2655	17

DATE MAILED: 08/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/731,178

Applicant(s)

GOEDEKE ET AL.

Examiner

Michael N. Opsasnick

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/24/2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeffery D. Snell (U.S. Patent 5,792,204, issued August 11, 1998).

As per claims 1, 4-6, 9, 19, 20, 26, and 30, Snell teaches a system interfacing with an implanted medical device (col. 3, lines 61-65), with:

- microphone input of a voice command to a speech recognizer (col. 3, lines 5-7);
- the speech recognizer matching the input voice command to the subset of commands and converting the recognized voice command into a selection code (control program instructions, col. 4, line 5),

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- said commands along with a set of control signals being stored in memory (col. 5, line 67 thru col. 6, line 2; col. 4, lines 5-6), and
- generating a control signal therefrom to execute the commands (col. 3, lines 9-13; col. 5, lines 4-6);
- a display device (col. 4, line 62); and
- displaying received data generated by the implanted medical device in response to the execution of the command as well as implanted medical device state data (col. 4, lines 62-65 and col. 5, lines 3-13).
- interfacing with an implanted medical device (col. 3, lines 61-65), with a microphone input of a voice command to a speech recognizer (col. 3, lines 5-7); control program instructions, col. 4, line 5.

Snell does not explicitly teach displaying the selectable subset of commands as a function of the device. However, the examiner takes Official Notice that it is old and notoriously well known to have context-sensitive commands, and to display them for user selection by voice (or, of course, by keyboard or mouse) from a displayed menu. It would have been obvious for an artisan at the time of invention to display the available commands to avoid wasting user time by having her remember the precise available command words.

As per claims 2, 3, 23, and 29, Snell does not specifically teach a bandpass amplifier to reject ambient background signals from the microphone. However, the examiner takes Official Notice that it is old and notoriously well-known to bandpass-filter microphone audio input for

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speech recognizers to confine the bandwidth to the speech band. It would have been obvious for an artisan at the time of invention to do this to reduce extraneous noise, particularly broadband impulsive noise, coming from outside the speech band and causing speech recognizer errors.

As per claim 7, Snell teaches a pacing system analyzer (col. 4, lines 26-27 and 39).

As per claim 8, Snell teaches a programming unit adapted to interrogate and program the implanted medical device (col. 4, lines 62-64 and col. 5, lines 14-19).

As per claims 10-12, Snell does not explicitly teach an unidirectional microphone to be steered by the user of his medical data processing instrument. However, the examiner takes Official Notice that it is old and notoriously well-known to have a unidirectional microphone steerable by the user to input voice commands (or other speech) to a speech recognizer. It would have been obvious for an artisan at the time of invention to thus use a unidirectional microphone to conveniently spatially filter out noise coming from different directions than the user location.

As per claims 13, 24, and 27, Snell teaches adapting or configuring the speech recognizer and the processor for new commands or to a new user generating appropriate recognition data, to be stored in the memory arrangement (stored replaced command instructions and data to be used therefor, respectively, col. 5, lines 14-19 and col. 6, lines 6-9).

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As per claims 14, 25, and 28, Snell does not teach validating the user to limit the various levels of commands that a user is authorized to give. However, the examiner takes Official Notice, that it is notoriously well-known in speech recognizer applications involving safety and security considerations (not to mention proprietary data or other privacy concerns) to validate the user before giving access to the corresponding command or data levels. Therefore it would have been obvious for an artisan at the time of invention to include such a user validation feature in the processor, to prevent unqualified users from endangering the patient by misusing the implanted medical device (*cf.* col. 6, lines 56-58) or misappropriating her private data (*cf.* col. 5, lines 19-21).

As per claims 15-17 and 22, Snell teaches an audio signal confirming the receipt of a voice selected command or device state to inform the user or for user confirmation (col. 6, lines 61-64; col. 7, lines 4-14 and 58-62; for suggestion of similarly outputting device state *cf.* col. 5, lines 7-9).

As per claim 18, Snell teaches medical data processing from the implantable device via a communications network (col. 5, lines 41-47).

As per claim 21, Snell teaches validating the stored command speech sets to see whether the voice command is understood (col. 9, lines 6-14).

Response to Arguments

3. Applicant's arguments filed 8/18/2003 have been fully considered but they are not persuasive. As per applicant's arguments that the "examiner fails to teach a system interfacing with a medical device, and a speech recognition circuit coupled....set of commands", examiner points to Snell teaching Snell teaches a system interfacing with an implanted medical device (col. 3, lines 61-65), with a microphone input of a voice command to a speech recognizer (col. 3, lines 5-7); control program instructions, col. 4, line 5. As per applicant's argument that "on it's face the rejection fails to present a prima facie case of obviousness and is improper", examiner disagrees and points to MPEP 2144.03 [R-1] stating the instance wherein the examiner can take official notice without evidence provided there is an explanation of such (see MPEP 2144.03, section B → 'If Official Notice Is Taken of a Fact, Unsupported by Documentary Evidence, the Technical Line Of Reasoning Underlying a Decision To Take Such Notice Must Be Clear and Unmistakable'). Therefore, the previous rejection as stated above is proper. Lastly, applicant's representative has not directly challenged the official notice but has challenged the appropriateness of the rejection. MPEP 2144.03, section C clearly states that a general allegation that the claims define a patentable invention without any reference to the examiner's assertion of official notice would be inadequate. If applicant adequately traverses the examiner's assertion of official notice, the examiner must provide documentary evidence in the next Office action if the rejection is to be maintained. Since applicant did not directly challenge the official notice (instead

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challenging the appropriateness of the rejection), the office action mailed on 2/25/2004 is deemed proper and addressing the issues presented in the papers date 1/13/2004 and 2/3/2004. In the interest of compact prosecution, the examiner assumes that the applicant will directly challenge the Official Notice with respect to context sensitive command, and provides below the references supporting this:

- 1) Smith et al (5054082) teaches context specific codebooks to reduce codebook/memory size (col. 1 lines 25-60, col. 3 lines 5-15).
- 2) Andreshak et al (5664061) teaches context dependent models assigned to certain categories (col. 7 64 – col. 8 line 20)
- 3) Salazar et al (5774841) teaches both speaker independent (col. 17 lines 1-20) as well as context specific commands (col. 19 lines 1-21) in different applications (col. 16 lines 28-36)
- 4) Bernardi et al (6101338) teaches a subset of voice commands for a specific application to save memory (col. 1 lines 20-60)
- 5) Murphy et al (5544654) teaches a limited voice vocabulary for an ultrasound machine
- 6) Amirghodsi et al (4974191) teaches subset of languages for different purposes (abstract)

The multiple sources above showing context sensitive commands for specific applications, along with the breadth of application areas, supports the Official Notice regarding context sensitive commands.

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Conclusion

4. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

5. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872 9314,

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (703)305-4089, who is available Tuesday-Thursday, 9am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To, can be reached at (703)305-4827. The facsimile phone number for this group is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (703) 305-4750, the 2600 Customer Service telephone number is (703) 306-0377.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mno
7/31/2004


W. R. YOUNG
PRIMARY EXAMINER